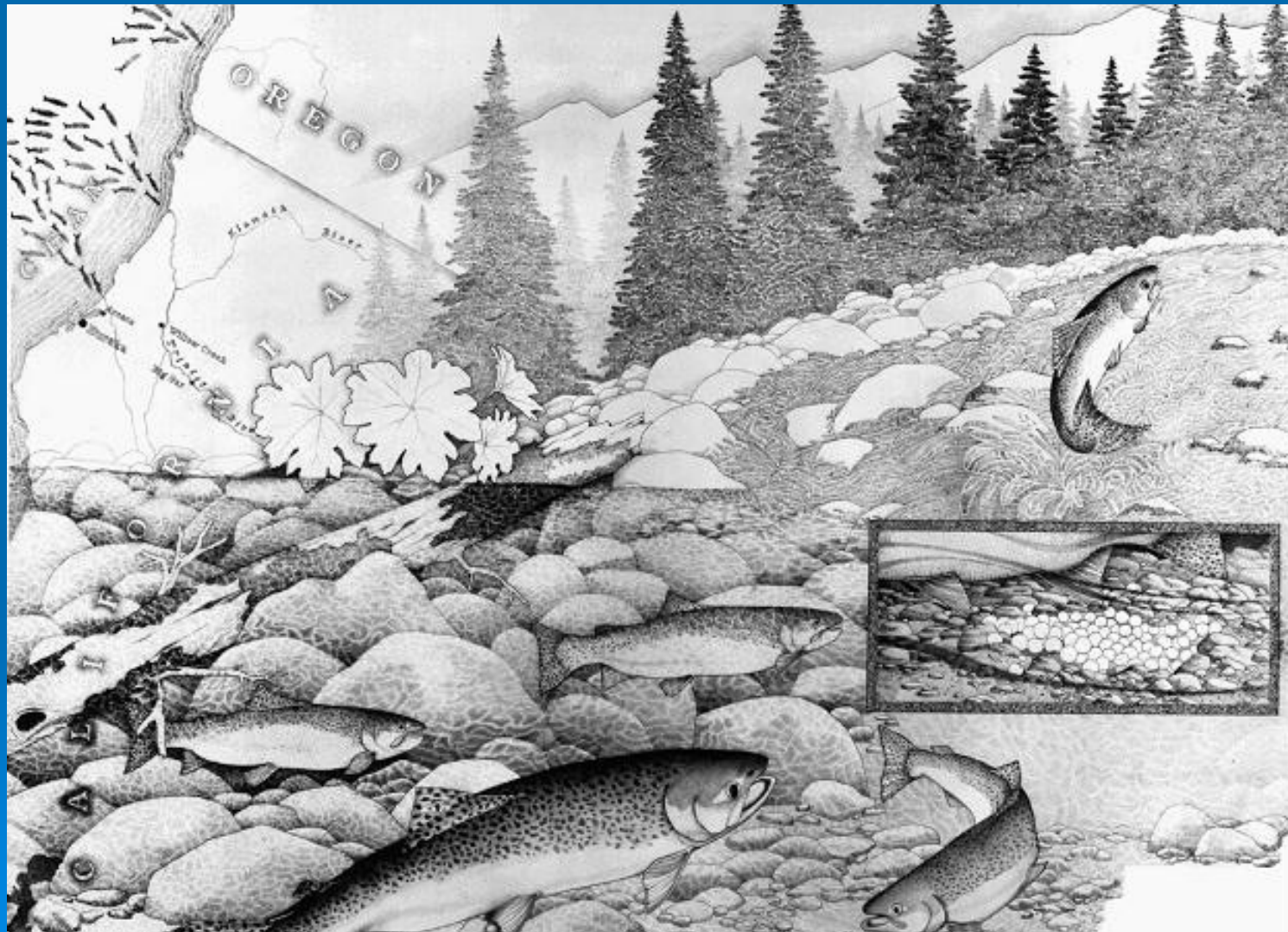



Five Counties Salmonid Conservation Program



Five Counties Salmonid Conservation Program

Goal: *“To strive to protect the economic and social resources of Northwestern California by providing for the conservation and restoration of salmonid populations to healthy and sustainable levels and to base decisions on watershed rather than County boundaries.”*

The background of the slide is a solid blue color. At the bottom, there are three sets of concentric, light blue circles that resemble ripples on water, positioned towards the right side of the frame.

Five Counties Salmonid Conservation Program

■ Program Elements:

- **Assessment of Conditions.** Environmental Audit by Univ. of CA Cooperative Extension, 1998
- **Biological Prioritization.** Empirical Biological Prioritization by fisheries biologists, 1998 and 2002
- **Migration Barrier Inventory.** Migration Barrier Inventory of County Road stream crossings, 1999-'02

Five Counties Salmonid Conservation Program

- **Barrier Removal**
29 Projects completed
between 2000-'02
opening 99 miles of
habitat (cost \$4.5 million)



Project: Jordan Creek #2

Five Counties Salmonid Conservation Program

- **Roads Erosion Inventory**
Conducted inventory of 1,700+ miles of roads for sediment potential
- **Spoil Disposal Inventory.** Located 450 spoils disposal sites during sediment inventory



Five Counties Salmonid Conservation Program

- **Roads Sediment Reduction Program.** Completed the first six projects treating or preventing more than 20,000 yd³ of sediment delivery to stream systems. Only 2.5 million yd³ to go.



Five Counties Salmonid Conservation Program

➤ Roads Training & Education.

Road Crew Training on Water Quality and Salmonid Habitat As It Relates to Roads Management (annually)



➤ Policy & Planning Education.

Annual meeting of decision-makers, regulators, land use planners, biologists, engineers

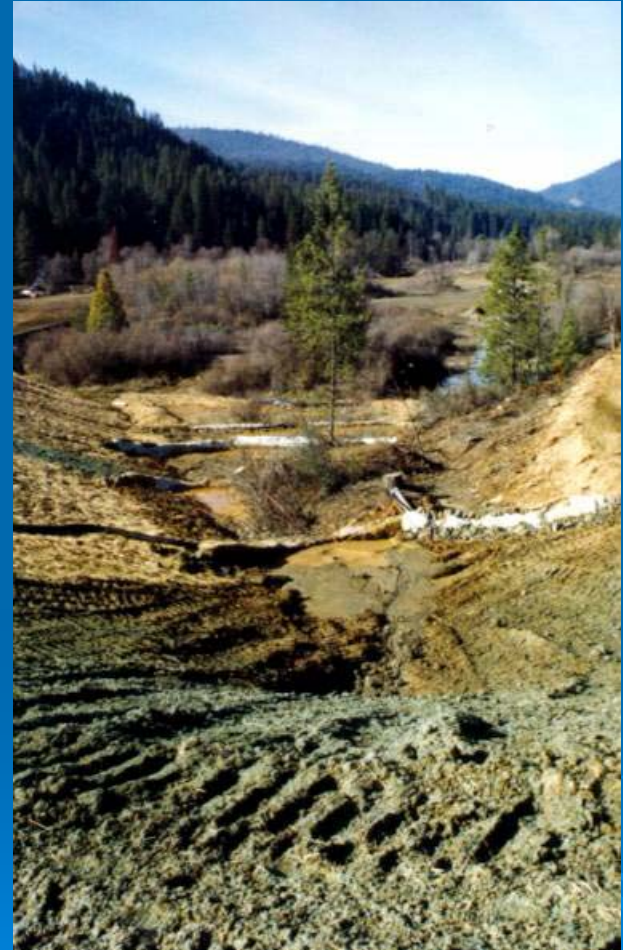


Five Counties Salmonid Conservation Program

- **Guidance and Accountability.** Development of “A Water Quality and Stream Habitat Protection Manual for County Road Maintenance in Northwestern California Watersheds” 2000-’02
- Incorporated in CA Fish and Game Take Limits Coverage recommendations under Section 2084 of the CA Endangered Species Act
- May be considered for Incidental Take coverage of the Federal Endangered Species Act
- Is a component of the Counties Implementation Plans under Clean Water Act, Section 303(d) sediment TMDLs

Five Counties Salmonid Conservation Program

- **Grading Ordinances.**
Provided professional, technical and financial resources for draft ordinances in three counties.



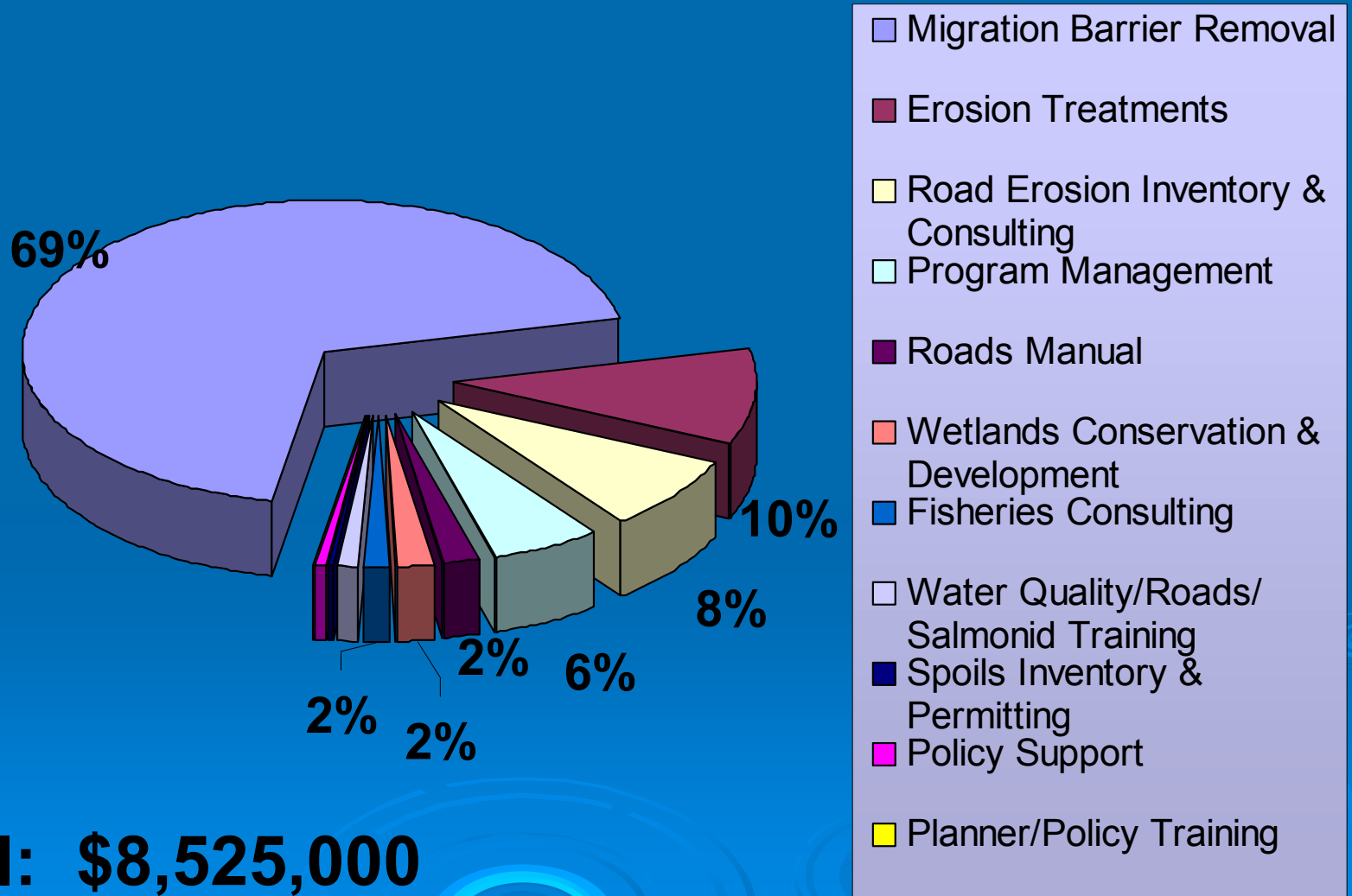
Five Counties Salmonid Conservation Program

Other Program Elements

- Community and watershed group outreach
- Inter-agency efforts and state recovery planning
- Urban stream projects
- Wetlands conservation and expansion
- Web-site access (5counties.org)
- Incentive based land use policies
- Beta test sites for Fish Xing software
- Beta testing new roads technology
- Pacific Coastal Salmon Recovery Fund

Five Counties Salmonid Conservation Program

Program Funding 1998 - 2002



Five Counties Salmonid Conservation Program

- Continue existing programs
- get agencies to focus on incentive over regulation
 - Restore meander and complexity
 - Stream day-lighting
 - Estuary restoration
 - Floodplain restoration
 - Regulatory relief
 - Stable funding
- Intergrate with Federal recovery processes



Five Counties Salmonid Conservation Program

**Target Priority
Problems/Opportunities:**

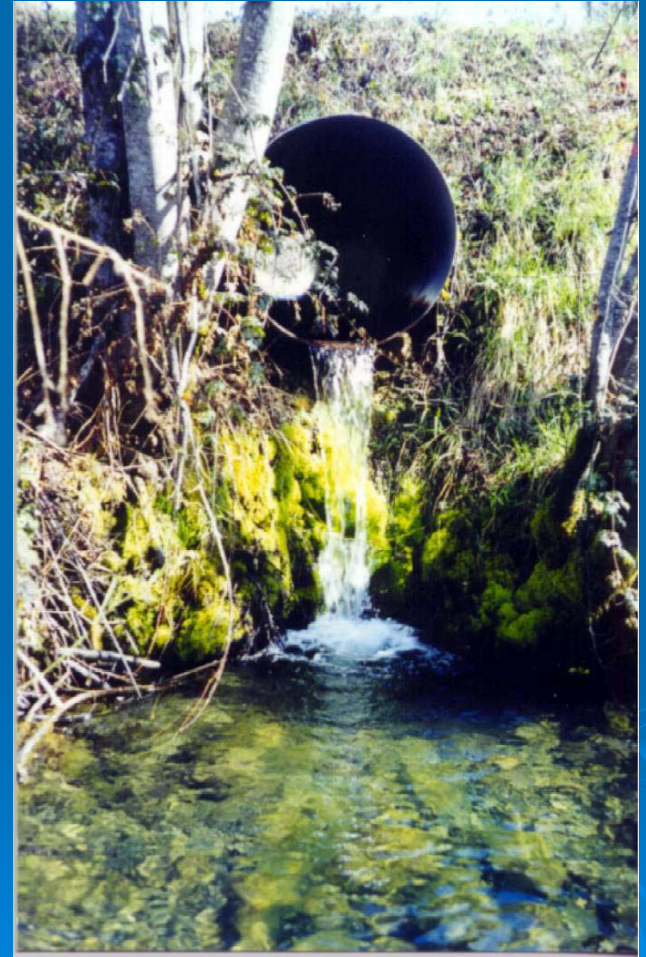
Migration Barriers

Water Quantity

Water Quality

Education/Training

Avoid lawsuits



SCOPING FOR COST-EFFICIENT PROJECTS

Migration Barrier Inventory Of Five Counties



Survey

208 Barriers

\$30-\$75 Million

**10-50 Years To
Complete**

SCOPING FOR COST-EFFICIENT PROJECTS

Migration Barrier Prioritization

| FIVE COUNTIES - RANKING MATRIX OF 206 STREAM CROSSINGS | | | | | | | | |
|--|---------------|----------------------|--------------------|----------------------------|-------------------------|-------------------------|----------------------|-------------------------|
| Color Code: Green = completed project. Blue = funded project. Yellow = proposal submitted Purple = in progress | | | | | | | | |
| RANK | County | Stream Name | Road Name | Presumed Species Diversity | Species Diversity Score | Extent of Barrier Score | Current Sizing Score | Current Condition Score |
| #1 | Humboldt | Lindsay Creek | Murray Road | CO, CH, ST, CU | 7 | 15 | 4 | 3 |
| #2 | Humboldt | Ryan Creek | Mitchell Road | CO, ST, CUT | 5 | 15 | 5 | 5 |
| #3 | Del Norte | Clarks Creek | Walker Road | CH, CO, STHD, CUT | 5 | 15 | 4 | 3 |
| #4 | Coastal Mendo | Ancestor Creek | Briceland Road | CO, STHD | 4 | 15 | 4 | 1 |
| #5 | Humboldt | North Anker Creek | Fieldbrook Road | CO, CH, ST, CU | 7 | 15 | 5 | 3 |
| #6 | Del Norte | Peacock Creek | Tan Oak Drive | CH (?), CO, STHD, CUT | 5 | 15 | 5 | 3 |
| #7 | Humboldt | East Mill Creek #1 | Conklin Creek Road | CO, ST, CH (?) | 6 | 15 | 4 | 3 |
| #8 | Del Norte | Jordan Creek #1 | Parkway Drive | CO, STHD, CUT | 4 | 15 | 5 | 1 |
| Tie #9 | Trinity | Little Browns Creek | Roundy Rd | Steelhead, coho | 3 | 15 | 4 | 3 |
| Tie #9 | Trinity | West Weaver Creek | Oregon Street | Steelhead, coho | 3 | 15 | 4 | 3 |
| Tie #10 | Del Norte | Jordan Creek #2 | Elk Valley Road | CO, STHD, CUT | 4 | 15 | 5 | 1 |
| Tie #10 | Coastal Mendo | Marsh Creek | Flynn Creek Road | CO, STHD | 4 | 15 | 5 | 3 |
| Tie #10 | Coastal Mendo | Ryan Creek | Ryan Creek Road | CO, CH, STHD | 6 | 15 | 3 | 3 |
| #11 | Humboldt | South Anker Creek #2 | Anker Road | CO, CH, ST, CU | 7 | 15 | 5 | 3 |
| #12 | Coastal Mendo | Dark Gulch | Orr Springs Road | CO, STHD | 4 | 15 | 5 | 3 |
| Tie #13 | Coastal Mendo | Albion River | Flynn Creek Road | CO, STHD | 4 | 15 | 3 | 1 |
| Tie #13 | Humboldt | Cloney Gulch | Kneeland Road | CO, CH, ST, CU | 7 | 15 | 1 | 0 |
| Tie #13 | Humboldt | Mather Creek | Murray Road | CO, ST, CU | 5 | 15 | 5 | 3 |
| #14 | Trinity | Deadwood Creek | Hatchery Rd | Steelhead, coho, chinook | 4 | 13 | 5 | 1 |
| #15 | Humboldt | Morrison Gulch | Quarry Road | CO, ST, CU | 5 | 15 | 4 | 3 |
| #16 | Coastal Mendo | Digger Creek | Ocean Drive | CO, STHD | 4 | 15 | 5 | 1 |

Completed Barrier Projects



Clarks Creek, 2002

Completed Barrier Projects



Clarks Creek, 2002

Completed Barrier Projects



Merril Creek, 2002



Completed Barrier Projects



Merrill Creek, 2002



Completed Barrier Projects



Little
Humbug
Creek, 2000

Completed Barrier Projects



Deep Creek



Completed Barrier Projects



Morrison Gulch

Completed Barrier Projects



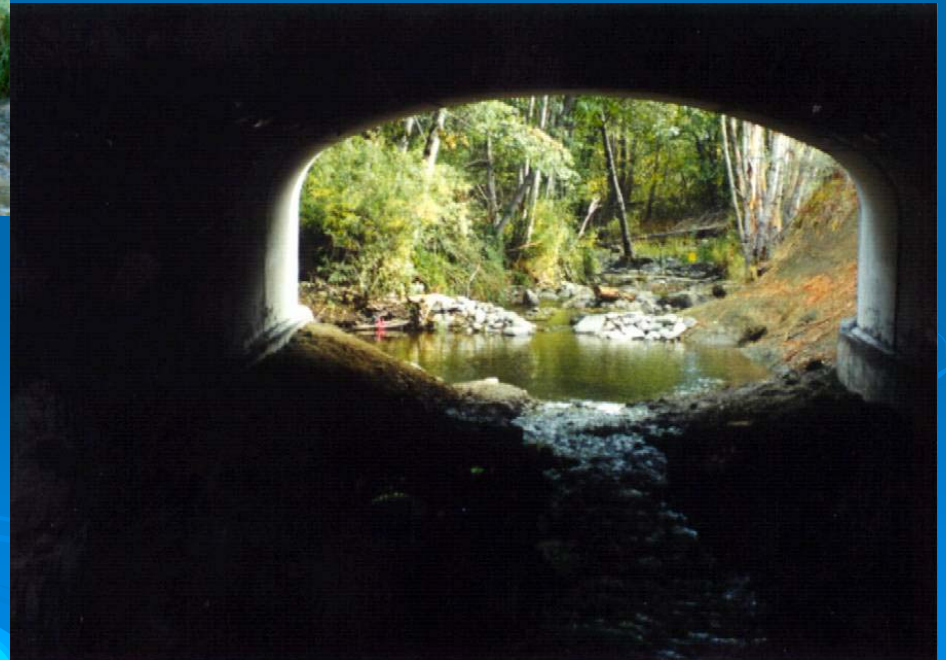
Jordan Creek



Completed Barrier Projects



West Weaver Creek, 2000



Completed Barrier Projects

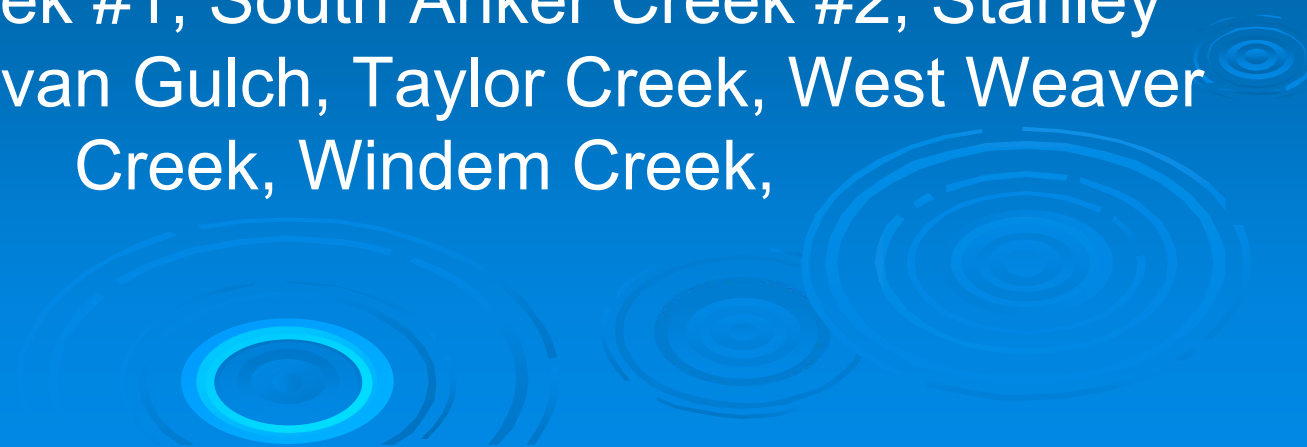
Barkhouse Creek



Completed Barrier Projects

99 Miles Restored Habitat in 29 Projects:

Barkhouse Creek, Bear Creek, Clarks Creek, Clear Creek, Cloney Gulch, Deep Gulch, Digger Creek, East Anderson Creek, Jordan Creek #1, Lindsay Creek, Little Humbug Creek, Mather Creek, Matherson Creek, Merrill Creek, Mill Creek, Morrison Gulch, Mud Creek, North Anker Creek, Olsen Creek, Peacock Creek, Ryan Creek, Rail Creek, Ryan Creek, South Anker Creek #1, South Anker Creek #2, Stanley Creek, Sullivan Gulch, Taylor Creek, West Weaver Creek, Windem Creek,



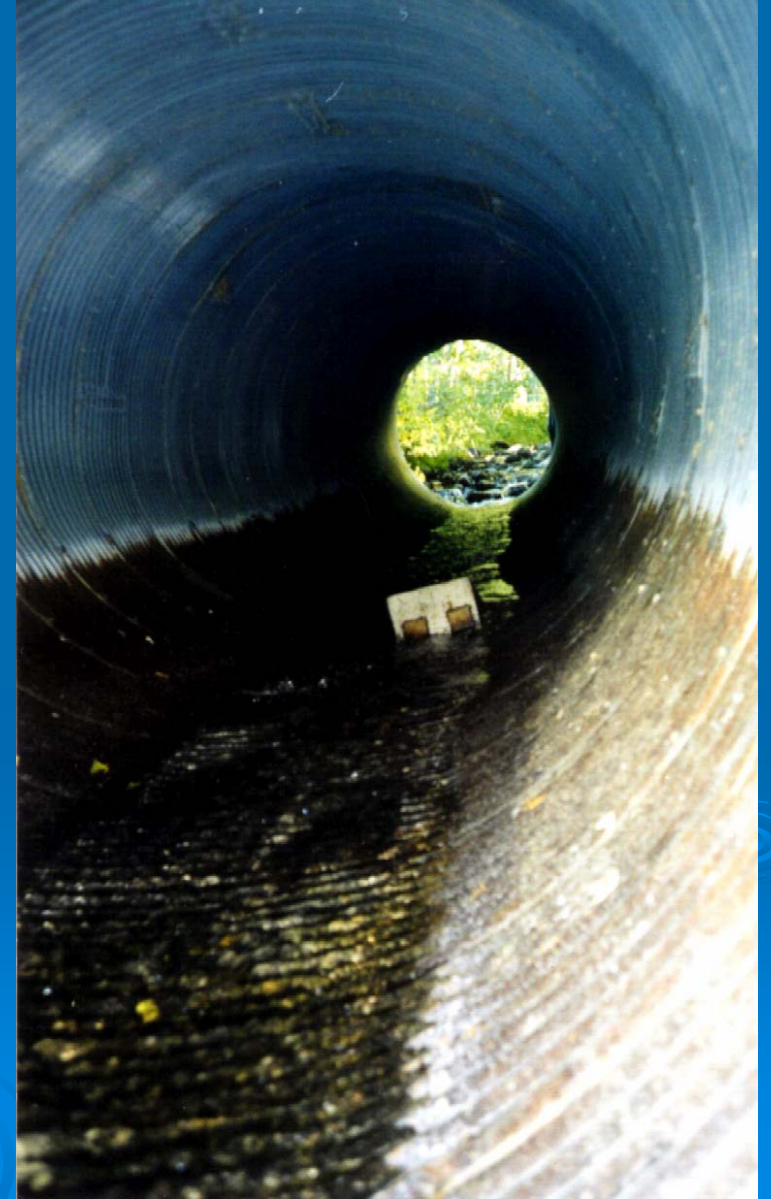
Projects That Do Not Work Well



Projects That Do Not Work Well



Projects That Do Not Work Well



Projects That Do Not Work Well

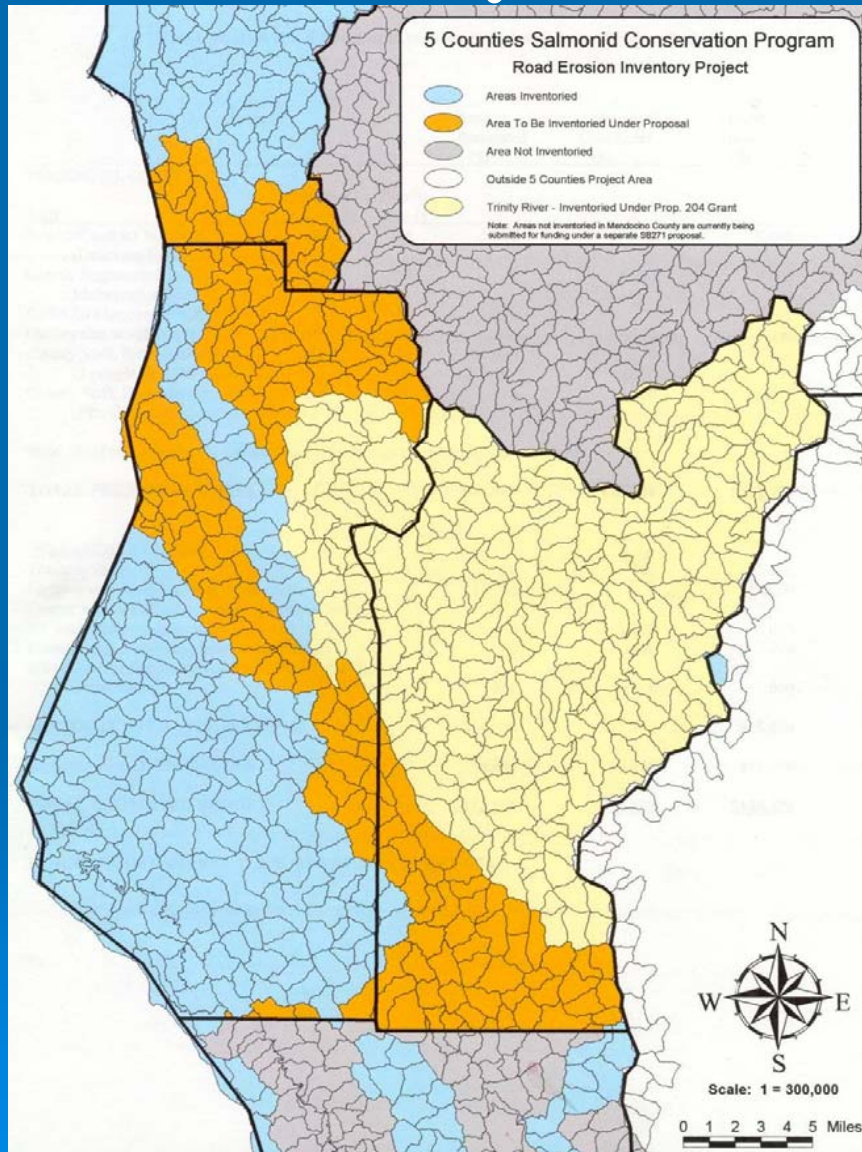


SOME PROJECTS THAT END UP WORKING



Five Counties Salmonid Conservation Program

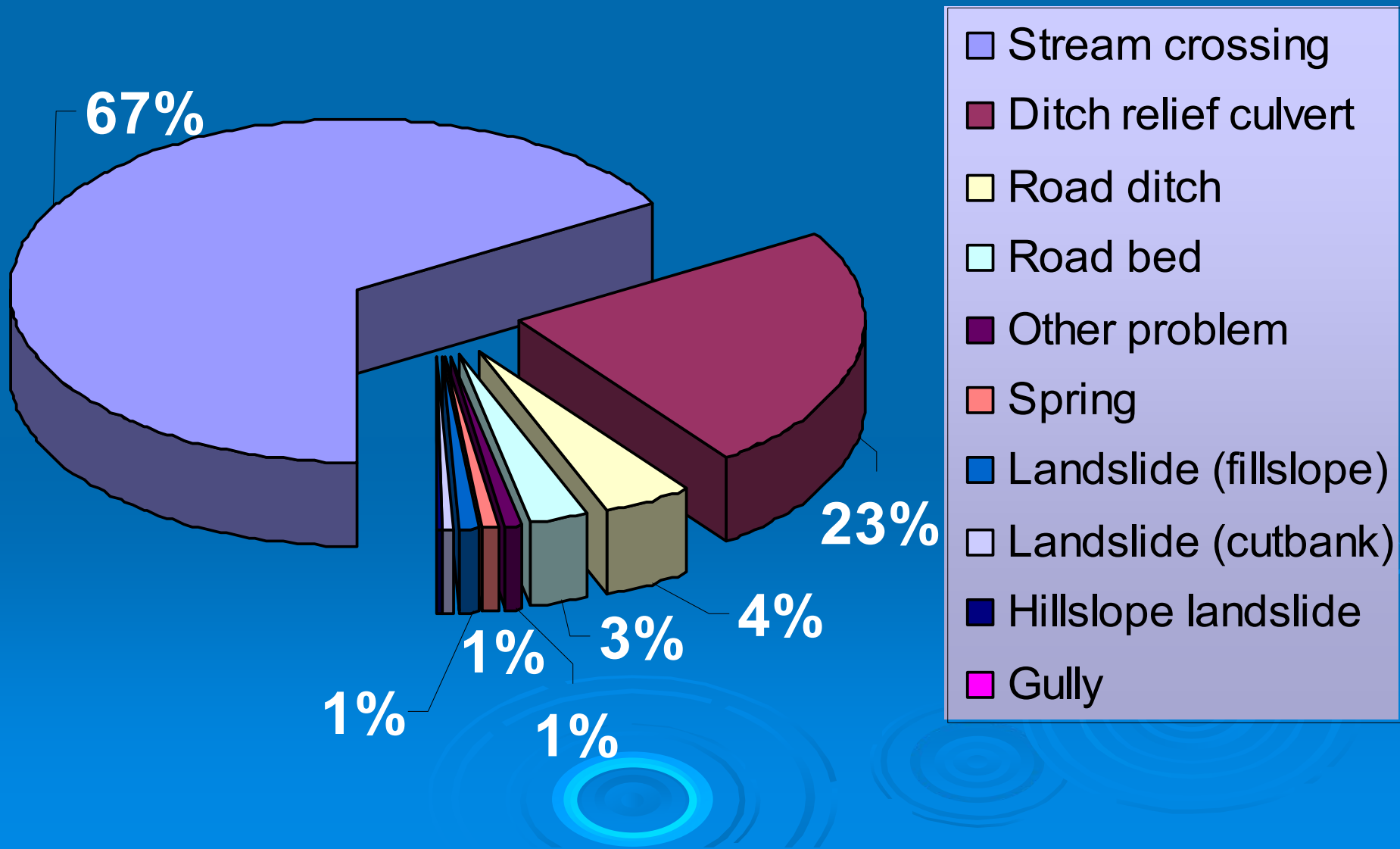
Direct Inventory of Roads and Treatments (DIRT)



-  Areas Inventoried under SB 271
-  Areas Proposed to be Inventoried under SB 271
-  Area Not Inventoried
-  Trinity River Area Inventoried Under Prop 204

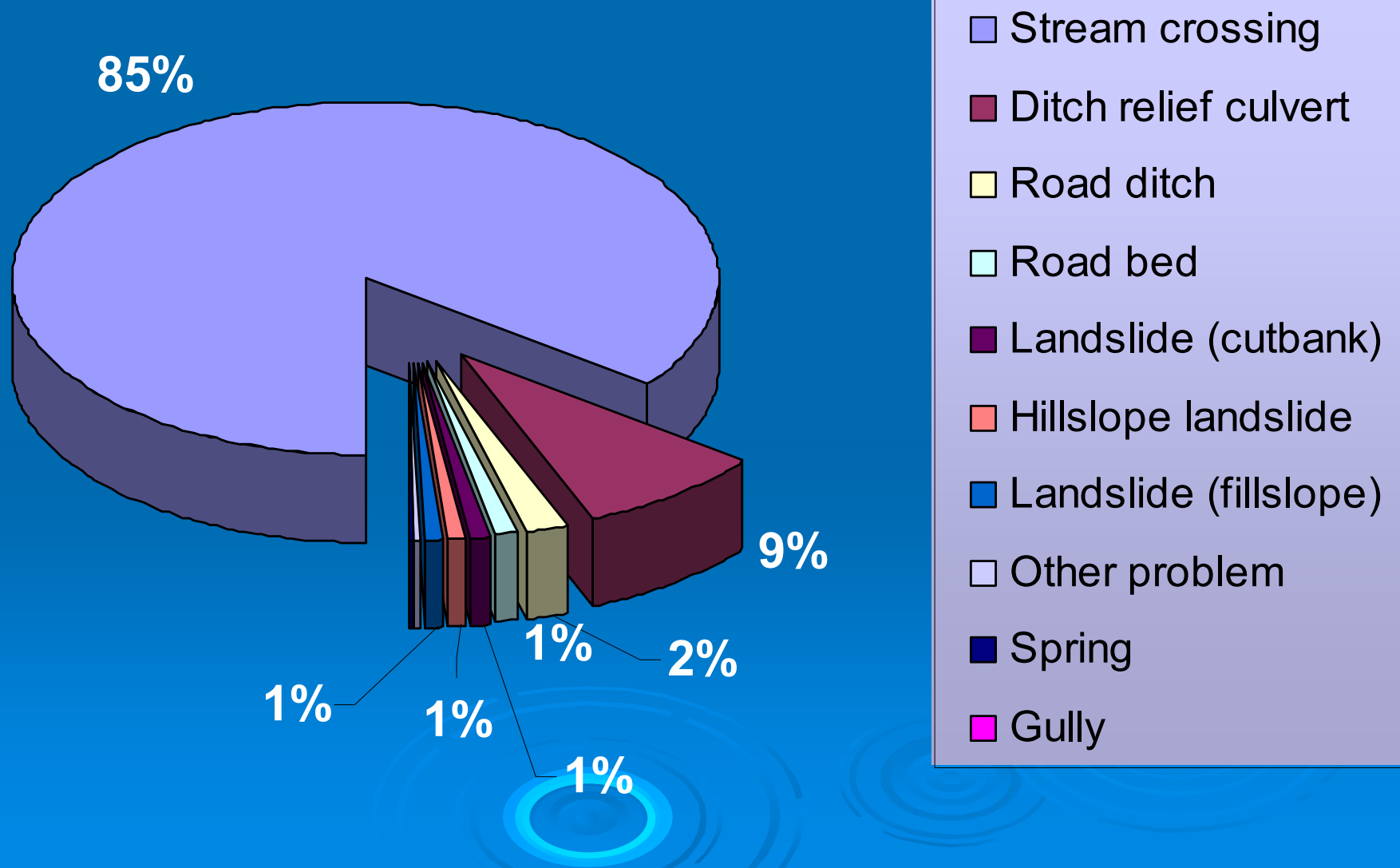
Five Counties Salmon Conservation Program

Roads Potential Erosion Inventory (DIRT)



Five Counties Salmon Conservation Program

DIRT Total Erosion by Problem Type



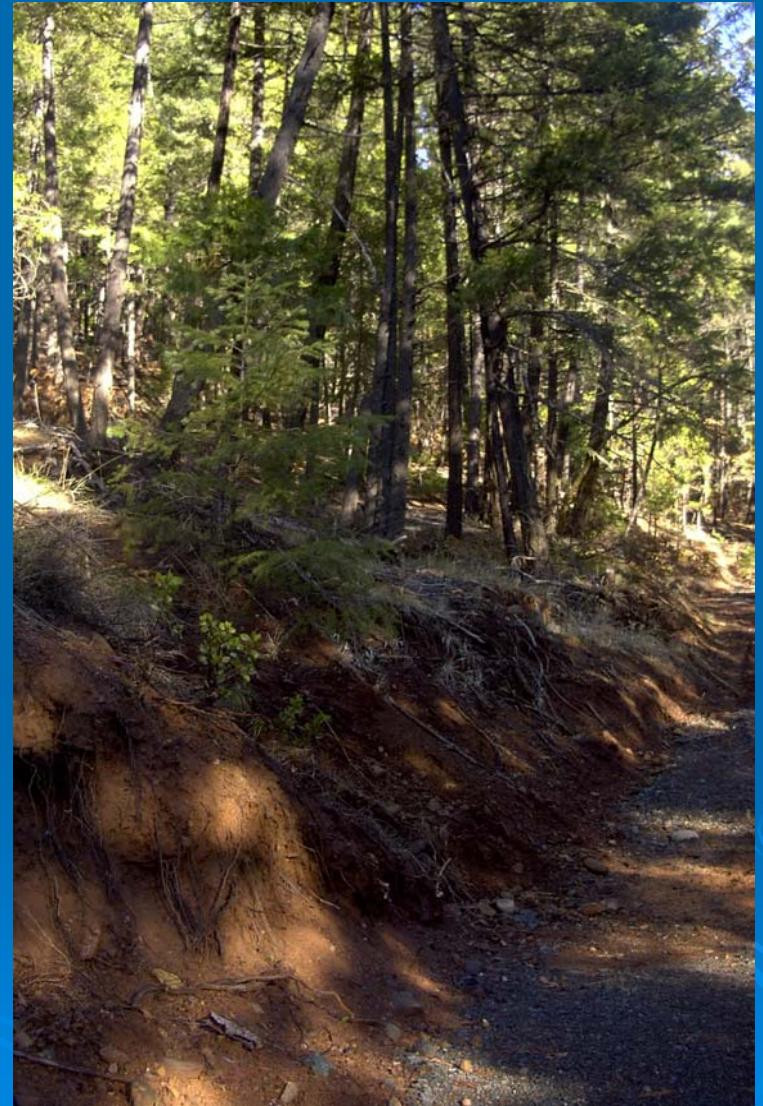
Five Counties Salmonid Conservation Program



Five Counties Salmonid Conservation Program



Five Counties Salmonid Conservation Program



Five Counties Salmonid Conservation Program



Conclusion

Five Counties Salmon Conservation Program would like to thank the following:

- **Road Management crews in all Counties**
- **For financial support:**
 - **Pacific Salmon Restoration Initiative**
 - **State Programs:**
 - **SB 271**
 - **Prop 12, 13 & 204**
 - **CWA 319(h)**